

become so. Peculiarities of form or colour are commonly associated with peculiarities of locality or climate. All men who inhabit the tropics are of dark complexion : brilliancy of colour prevails amongst tropical birds and insects : it is in temperate regions that birds develop most tunefully their powers of song. We can hardly believe that in these cases environment has not influenced the course of evolution. Amongst those who deny that the influence of environment can originate variations there are some who admit that it may prepare them— that the giraffe by striving to reach high branches may endow its progeny with a disposition to develop a longer neck. And it is indisputable that a change of environment may influence evolution by stimulating variation. It is under the artificial conditions of domestication or manuring that plants and animals sport most freely. During the cycles that are covered by the records of geology the surface of the earth has undergone strange transformations. Land has been submerged and re-elevated time after time. an ice cap has advanced over countries that are now temperate. has retired. and has advanced again. mountain ranges have risen and fallen like the waves of the sea. There have been no lack of changes to stimulate variation. and we may reasonably conclude that in former ages

they occurred more frequently than
the present
condition of the earth might lead us to
suppose.
Granting, however, that we can in
some
measure explain the occurrence of
variations.
or
mutations. we are still confronted with
a most
difficult problem—**m**—the *spread* of these
variations
from an individual to a race. the
development of
a new species from single specimens
which
m emerged
from their own kind bearing new
peculiarities.